

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

INVENTOR: Syed S. ALI; & Said O. BELHAJ

CASE: ALI 17-3

TITLE: SEPARATELY SECURED VOICE MESSAGES

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Enclosed are the following papers relating to the above-named application for patent:

Specification (including claims and Abstract) - 22 pages

8 Informal sheets of drawing(s)

1 Assignment with Cover Sheet

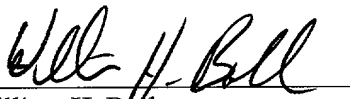
Declaration and Power of Attorney

CLAIMS AS FILE				
	NO. FILED	NO. EXTRA	RATE	CALCULATIONS
Total Claims	24 - 20 =	4	x \$18 =	\$72
Independent Claims	5 - 3 =	2	x \$78 =	\$156
Multiple Dependent Claim(s), if applicable			\$260 =	\$0
Basic Fee				\$760
			TOTAL FEE:	\$988

Please file the application and charge **Lucent Technologies Deposit Account No. 12-2325** the amount of **\$988** to cover the filing fee. Duplicate copies of this letter are enclosed. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 12-2325** as required to correct the error.

Please address all correspondence to **FARKAS & MANELLI, PLLC, 2000 M Street, N.W. 7th Floor, Washington, DC 20036-3307**, and all telephone calls to William H. Bollman at his Washington, DC local number of (202) 261-1000.

Respectfully submitted,



William H. Bollman

Reg. No.: 36,457

Attorney for Applicant(s)

Date: May 20, 1999

Farkas & Manelli, PLLC
2000 M Street, N.W. 7th Floor
Washington, DC 20036-3307
(202) 261-1000

Jc135 U.S. PTO
09/314966
05/20/99

Jc408 U.S. PTO
05/20/99

APPLICATION UNDER UNITED STATES PATENT LAWS

Invention: **SEPARATELY SECURED VOICE MESSAGES**

Inventor(s): Syed S. ALI; and
Said O. BELHAJ

Farkas & Manelli P.L.L.C.
2000 M Street, N.W.
7th Floor
Washington, D.C. 20036-3307
Attorneys
Telephone: (202) 261-1000

This is a:

- ☐ [] Provisional Application
- ☒ [X] Regular Utility Application
- ☐ [] Continuing Application
- ☐ [] PCT National Phase Application
- ☐ [] Design Application
- ☐ [] Reissue Application
- ☐ [] Plant Application

SPECIFICATION

SEPARATELY SECURED VOICE MESSAGES

BACKGROUND OF THE INVENTION

1. Field of the Invention

5 This invention relates generally to voice messaging systems. More particularly, it relates to a telephone answering device capable of receiving and storing separately secured voice messages from a calling party and of allowing a particular user or other designated party to access the separately secured voice messages.

10

2. Background of Related Art

 Voice messaging systems in general, and telephone answering devices (i.e., answering machines) in particular, are useful devices for the home or office. For instance, a conventional telephone
15 answering device operates on a single telephone line and answers an incoming call to an unused (i.e., on-hook) telephone after a desired number of rings. In response to an incoming call, a telephone answering device causes a telephone line to enter an off-hook condition, then plays an outgoing greeting message to the calling party. After the outgoing
20 greeting message, the calling party typically may leave a voice message on the telephone answering device. At a later time, the voice message is replayed by the user, either local to the telephone answering device or via remote connection from another telephone.

 Fig. 7 illustrates a conventional telephone answering device
25 capable of answering an incoming call on a telephone line. In Fig. 7, a telephone answering device 11 is connected to a telephone company central office 13 via a telephone line 15. A telephone line interface (TLI) 17 in the telephone answering device 11 provides the conventional isolation, DC and AC impedance as required by telephone company
30 standards. The telephone line interface 17 also provides a ring detect

signal to a controller 19. The controller 19 may be any suitable processor, e.g., microprocessor, microcontroller, or digital signal processor (DSP). The ring detect signal indicates to the controller 19 the ringing of an incoming telephone call on the telephone line 15.

5 After a desired number of ring signals, the telephone answering device 11 causes the telephone line interface 17 to place the telephone line in an off-hook state, and instructs a voice recorder/playback audio module 21 to play an outgoing greeting message over the telephone line 15 to the calling party. Upon completion of the
10 outgoing greeting message, the calling party may leave a voice message in voice message memory 23 under the control of the controller 19. A keypad 25 allows the user to select various modes of operation, including the playback of voice messages.

 The conventional telephone answering device 11 illustrated
15 in Fig. 7 further includes a call related information (e.g., Calling Identity Delivery (Caller ID)) detector/receiver 27 to detect and receive from a central office call related information, e.g., the telephone number and/or household name of a calling party. The call related information may be displayed on a display 29.

20 By using Caller ID or other call related information data service, the user of the conventional telephone answering device 11 can determine the name and/or telephone number of the calling party either before the incoming call is answered, and/or when an associated voice message is played back. Basic call related information services such as
25 Caller ID typically transmit call related information from the local telephone company to the called party while the called party's phone is in a hung-up or on-hook state, e.g., between the first and second rings.

 Oftentimes, it is important or necessary for the calling party to leave a private voice message for a particular user of a voice
30 messaging system or other designated party. Conventional voice

messaging systems provide separate voice mailboxes, typically each at a different extension. The calling party inputs a particular extension number relating to a particular voice mailbox, and is given the opportunity to record a voice message for storage in the designated voice mailbox.

5 However, in conventional voice messaging systems, all messages left in any one particular voice mailbox are accessible by all users of that particular voice mailbox. Unfortunately, a conventional multi-user voice messaging system does not prevent an otherwise unauthorized user to playback and listen to any particular voice message in any one
10 voice mailbox.

 Accordingly, there exists a need for a telephone answering device which prevents unauthorized playback of private voice messages.

SUMMARY OF THE INVENTION

15 In accordance with the principles of the present invention, a voice messaging system comprises a telephone line interface, a controller, and voice message memory adapted to store a plurality of voice messages. A secured message authorization module is adapted to allow a calling party to separately secure a voice message for access only
20 by an authorized user.

 A method for securing a voice message on a voice messaging system in accordance with another aspect of the present invention comprises prompting a calling party to enter an authorized security code. An entered authorized security code is compared to at
25 least one pre-stored authorized security code accessible by the voice messaging system. Upon matching the entered authorized security code with the at least one pre-stored authorized security code, a recorded voice message is secured.

 A method for accessing a secured voice message on a
30 voice messaging system in accordance with yet another aspect of the

present invention comprises prompting a user of the voice messaging system to enter an authorized security code on a voice message-by-voice message basis for secured voice messages. An entered authorized security code is compared to at least one pre-stored authorized security code accessible by the voice messaging system. Upon matching the entered authorized security code with the at least one pre-stored authorized security code, the user is allowed access to an underlying secured voice message.

10 **BRIEF DESCRIPTION OF THE DRAWINGS**

Features and advantages of the present invention will become apparent to those skilled in the art from the following description with reference to the drawings, in which:

15 Fig. 1 illustrates a telephone answering device for allowing a user to record separately secured/private voice messages and allowing a particular user or other designated party to access the separately secured/private voice messages, in accordance with the principles of the present invention.

20 Fig. 2 illustrates an exemplary authorized security code table, in accordance with the principles of the present invention.

Fig. 3A is a flow chart illustrating an exemplary process by which the telephone answering device of Fig. 1 allows a calling party to leave a separately secured/private voice message on the telephone answering device.

25 Fig. 3B is a flow chart illustrating an exemplary process by which the telephone answering device of Fig. 1 allows an authorized user to access a separately secured/private voice message stored in the telephone answering device.

30 Fig. 4 illustrates another embodiment of a telephone answering device for allowing a caller to record a separately

secured/private voice message, and for allowing a particular user or other designated party to access the separately secured/private voice messages, in accordance with the principles of the present invention.

Fig. 5 illustrates an exemplary caller's authorized security code table, in accordance with the principles of the present invention.

Fig. 6 illustrates an exemplary user's authorized security code table, in accordance with the principles of the present invention.

Fig. 7 illustrates a conventional telephone answering device allowing any user of a voice messaging system to access any or all stored voice messages received over a particular telephone line.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

The present invention provides a voice messaging system and method for allowing a calling party to separately secure a recorded private voice message. The present invention further allows the intended (i.e., authorized) user of the voice messaging system or other designated party to access the separately secured/private voice message. The calling party may manually secure the secured/private voice message either by inputting a pre-authorized security code, or may rely on an automatic securing capability provided by the called voice messaging system using call related information (e.g., Caller ID information) matched to an entry in a pre-arranged authorized security code table maintained in the voice messaging system. The user or other designated party intended by the caller to have playback/delete access to the separately secured voice message is provided access to the separately secured voice message upon entry of a pre-assigned user authorization security code.

If the calling party does not enter a proper pre-assigned (i.e., authorized) caller authorized security code, and/or if the call related information received by the voice messaging system with respect to the incoming call is not matched to an entry in an authorized security code

table, then the calling party is allowed to record a non-secured voice message on the voice messaging system in an otherwise conventional fashion, i.e., for playback by all users of the voice mailbox of the voice messaging system.

5 If, on the other hand, the user or other designated party operating the voice mailbox of the voice messaging system does not enter a pre-assigned user authorization security code when encountering a separately secured recorded voice message, then that user or other designated party is allowed access (e.g., to playback and/or to delete)
10 only to non-secured voice messages.

 For instance, if a calling party attempts to place a telephone call to an unanswered telephone, after a predetermined number of rings a telephone answering device automatically answers the call by placing the telephone line in an off-hook condition, and initiates the output of a
15 suitable outgoing greeting message. Thereafter, in accordance with one embodiment of the present invention, the calling party is allowed to enter a pre-assigned caller's authorization security code as desired to 'secure' their voice message for access only by an authorized person.

 The present invention is distinctive from the use of separate
20 voice mailboxes in a voice messaging system because it does not allow access to all voice messages in any particular voice mailbox based on a group-based password. Instead, in accordance with the principles of the present invention, voice messages are individually and separately secured for access by any particular user of a voice messaging system,
25 but may otherwise reside together with non-secured voice messages in a common voice mailbox and/or voice message memory of the voice messaging system.

 The particular security status of each individual voice message may be stored with TAG or other header information commonly

associated with each stored voice message in voice message memory 23 (Fig. 1).

5 A plurality of security levels may be implemented as desired, allowing different users different levels of access to any one secured voice message. Thus, for instance, a security level of 2 or HIGH may allow access only to adults using a particular voice messaging system, whereas another security level of 1 or LOW may allow access to all users of that particular voice messaging system.

10 Fig. 1 illustrates an embodiment of a voice messaging system in accordance with the principles of the present invention. In particular, Fig. 1 shows a telephone answering device, indicated generally at 10, capable of recording a separately secured/private voice message from a calling party, and of allowing a user or other designated party to access the separately secured/private voice message with the entry of a
15 pre-authorized security code into a keypad 30 or other information entry port of the telephone answering device 10.

In the embodiment of Fig. 1, the telephone answering device 10 includes at least one telephone line interface 12 for interconnection with a telephone company central office 14 via a telephone line 16. The
20 telephone line interface 12 interconnects the telephone line 16 with an otherwise conventional voice recorder/playback module 18.

The telephone answering device 10 of the present invention further includes a dual tone, multiple frequency (DTMF) decoder 24 to allow detection of security codes input remotely by the calling party.
25 Preferably, the security codes are comprised of alphanumeric digits consistent with those commonly associated with the 12 keys of an alphanumeric keypad commonly found on most touch tone telephones. The DTMF decoder 24 is shown internal to the controller 28, but may alternatively be separate from the controller 28 but nevertheless in
30 communication with the controller 28.

To allow secured access to selected voice messages, the telephone answering device **10** illustrated in Fig. 1 further includes a secured message authorization module **32** and an associated authorized security code table **34**.

5 The secured message authorization module **32** is preferably a software module included within the program code of the controller **28** which obtains a security code from a caller (or call related information), compares the code to a list of pre-authorized callers who may leave a separately secured voice message on the relevant telephone answering
10 device **10**, and directs the inclusion of security information with the header information relating to the associated voice message when stored in the voice message memory **23**. Alternatively, the secured message authorization module **32** may be separate from the controller **28**, but is preferably nevertheless in communication with the controller **28**.

15 The disclosed embodiment preferably (but not necessarily) includes a call related information detector/receiver **20** to provide call related information such as Caller ID information to the controller **28**. The telephone line interface **12** of the telephone answering device **10** interconnects the telephone line **16** with the call related information
20 detector/ receiver **20**, which detects and receives available call related information regarding a calling party on the telephone line **16**, e.g., a telephone number, area code, and/or household name associated with the incoming telephone call. The call related information may be displayed, e.g., on a display **22**, and/or otherwise made generally
25 available to the controller **28** for use in determining the desirability of establishing a secured status with an associated voice message stored in voice message memory **23**.

 The authorized security code table **34** is used by the secured message authorization module **32** to provide a pre-determined
30 list of authorized callers capable of recording a voice message having

secured status. The information in the authorized security code table **34** may be any sequence of alphanumeric characters, preferably associated with a standard 12-key alphanumeric keypad found on most touch tone telephones, but may alternatively or additionally include authorizing entries based on call related information (e.g., a telephone number and/or household name). The use of call related information provides the added convenience to the caller such that the caller need not manually input a security code. Thus, the call related information received by the called telephone answering device may be automatically detected and received by the call related information detector/receiver **20** and obtained by the secured message authorization module **32** for comparison with pre-authorized entries in the authorized security code table **34**.

The authorized security code table **34** may also include one or more security codes relating not only to callers but also to users authorized to playback particularly secured voice messages. Alternatively, a separate table may be maintained by the user to allow the secured message authorization module **32** to authorize users as they request playback of any particular separately secured voice message.

The authorized security code table **34** in the exemplary embodiment includes a database associating specifically authorized security codes and/or call related information with a specific calling party. Alternatively, calling parties may share one or more specifically authorized security codes, depending on the desires and security needs of the user(s) of the telephone answering device **10**.

Additional security access information may be gleaned from call related information received with respect to incoming telephone calls. For instance, a call information detector/receiver **20** may be included to automatically provide the telephone answering device with information sufficient to determine a pre-determined security level of an associated

voice message from a simple look-up table established in the controller **28**.

Fig. 2 illustrates the contents of an exemplary authorized security code table **34** programmed by the user of the telephone answering device **10** shown in Fig. 1.

In particular, Fig. 2 shows several examples of pre-determined authorized security codes input by the user using the keypad **30** and display **22**, with data input prompting by the controller **28** of the telephone answering device **10**.

For instance, entries **202-206** illustrate basic numeric security codes which may be used. The security codes may be of any length. While longer security codes typically offer greater security, shorter security codes may be suitable in many applications to prevent unauthorized users access to playback any separately secured voice messages.

Other types of security codes are possible. For instance, entry **208** illustrates the use of a telephone number for comparison with call related information received with respect to an incoming call, while entry **210** illustrates the use of a household name for comparison with received call related information. Entry **212** illustrates the use of a longer security code including alphanumeric characters.

Entries in the authorized security code table **34** are preferably pre-stored by the user of the telephone answering device **10** before reception of a relevant incoming call desiring secured voice message status. For instance, to pre-store an entry into the authorized security code table **34** under the direction of the secured message authorization module **32** in association with the controller **28**, the user is prompted to input an appropriate security code for the current voice message, be it an alphanumeric entry for manual input by the caller, or call related information obtained by the telephone answering device **10**

without the caller's intervention and/or even without the caller's knowledge.

Fig. 3A is a flow chart illustrating an exemplary process by which the telephone answering device of Fig. 1 allows a calling party to leave a separately secured/private voice message on a voice messaging system, e.g., a telephone answering device, and Fig. 3B is a flow chart illustrating an exemplary process by which the telephone answering device of Fig. 1 allows an authorized user to access a separately secured/private voice message stored in the telephone answering device.

In particular, Fig. 3A is a flow chart illustrating an exemplary process by which a caller to the telephone answering device **10** of Fig. 1 is allowed to leave a separately secured/private voice message. With reference to Fig. 3A, in step **302**, a calling party attempts to call the user at the telephone number of the telephone line **16**. After a predetermined number of rings that the telephone line goes unanswered, the telephone answering device **10** answers and plays an appropriate outgoing greeting message, e.g., "I'm not available right now, please leave a message" or other similar greeting.

In step **304**, the telephone answering device **10** further prompts the calling party to enter an authorized security code if they want to associate a secured status with their private voice message.

In the disclosed embodiment, the caller may enter the authorized security code either before recording the voice message, or at any time while recording the voice message. Thus, in step **306**, if the calling party wishes to record a secured/private voice message on the telephone answering device **10**, the calling party enters their assigned authorized security code.

In decision step **308**, the controller **28** compares the entered security code to the pre-assigned security code entries in the authorized security code table **34**.

If a match is found, in step **310**, the telephone answering device **10** associates a separate security status in the header associated with the secured/private voice message in memory.

5 In step **312**, if the calling party enters an incorrect security code, or fails to enter a security code, the telephone answering device **10** stores the voice message in an otherwise conventional fashion, i.e., without associating a secured status in the header information associated with the voice message stored in the voice message memory **23**.

Fig. 3B is another flow chart showing an exemplary process
10 by which the telephone answering device **10** of Fig. 1 allows a user to retrieve a separately secured/private voice message stored on the telephone answering device **10**.

With reference to Fig. 3A, in step **320**, the user accesses the telephone answering device **10** by requesting playback of a particular
15 voice message having a security status associated therewith. It is within the principles of the present invention for the telephone answering device **10** to playback non-secured voice messages in any appropriate order without requesting authorization from a user, but to pause in the playback sequence when a separately secured voice message is encountered.

20 Separately secured voice messages may be arranged in any accessible order. For instance, the separately secured voice messages may be arranged together for contiguous playback by the secured message authorization module **32** or other function in the controller **28**, either before or after the playback of non-secured voice messages.

25 Preferably, a user or other designated person cannot delete or otherwise dispose of a separately secured voice message without first inputting an appropriate authorization code for that separately secured voice message.

In step **322**, the telephone answering device **10** prompts the
30 user to enter an authorized security code to access a separately

secured/private voice messages for playback. At this point, the user may determine an appropriate security code by review of the call related information associated with that particular voice message.

5 In step **324**, if the user wishes to access a separately secured/private voice message on the telephone answering device **10**, the user enters his or her assigned authorized security code.

In decision step **326**, the controller **28** compares the entered security code to the list of pre-assigned security code entries in the authorized security code table **34**.

10 If a match is found in step **326**, the telephone answering device **10** plays back the relevant separately secured/private voice message in step **327**.

15 In step **328**, if the user enters an incorrect security code or fails to enter a security code, the telephone answering device **10** does not allow access to that particular voice message for which an incorrect security code was entered, but allows playback of non-secured voice messages, and prompts the user for entry of a suitable security code for any subsequent separately secured voice message.

20 Fig. 4 illustrates another embodiment of a telephone answering device for allowing a caller to record a separately secured/private voice message, and for allowing a particular user or other designated party to access the separately secured/private voice messages, in accordance with the principles of the present invention.

25 In particular, the telephone answering device **100** shown in Fig. 4 is similar to the telephone answering device **10** shown in Fig. 1, but includes separated tables for authorizing callers and for authorizing users. For instance, the telephone answering device **100** includes a user's authorized security code table **140** and a caller's authorized security code table **150**. The user's authorized security code table **140** includes security
30 codes relating to user's and other designated persons having access to

separately secured voice messages, and the caller's authorized security code table **150** includes security codes relating to callers who may secure a recorded voice message for access only by those persons who are appropriately authorized.

5 A more sophisticated security code table may be implemented wherein particular user authorization codes are related to certain callers, either by mapping call related information with the user authorization codes, by mapping callers authorization codes with authorized user security codes, or similar technique.

10 Fig. 5 illustrates exemplary entries in a simple caller's authorized security code table **150** shown in Fig. 4.

 In particular, the caller's authorized security code table **150** may be pre-stored by the user either before using the telephone answering device **100**, or while using the telephone answering device
15 **100**, e.g., by 'accepting' call related information relating to a current call for entry into the caller's authorization security code table **150**. For instance, to pre-store entries in the caller's authorized security code table **150**, the user can be prompted by an appropriate application program running in the controller **128** to associate particular Caller ID information,
20 e.g., a telephone number, name, etc., with the authority to secure a voice message.

 Fig. 6 illustrates exemplary entries in a user's authorized security code table **140** pre-stored by the user, manufacturer, or other designated entity, for allowing the user to play separately secured/private
25 voice message.

 Entries in the user's authorized security code table **140** of Fig. 6 can be pre-stored by the user of the telephone answering device **10**. For instance, to pre-store entries in the user's authorized security code table **140**, the user can be prompted by an appropriate application

program running in the controller 128 to enter the user's authorized security code via the keypad 130.

5 It should be noted that each calling party and each user can be assigned their own security codes, or groups of calling parties and/or users may share security codes. The security codes for one calling party, one user, or any number of calling parties and users can be updated, e.g., such as adding, deleting, or changing the authorized security codes, frequently by the user of the telephone answering device 10, e.g., by entering the security codes into the authorized security code table using 10 the keypad 30 or other input port. The principles of the present invention work with as few as only one security code, or with many, many security codes.

15 While the invention has been described with reference to the exemplary embodiments thereof, those skilled in the art will be able to make various modifications to the described embodiments of the invention without departing from the true spirit and scope of the invention.

CLAIMS

What is claimed is:

- 5 1. A voice messaging system, comprising:
 a telephone line interface;
 a controller;
 voice message memory adapted to store a plurality of voice
 messages; and
 a secured message authorization module adapted to allow a
10 calling party to separately secure a voice message for access only by an
 authorized user.
- 15 2. The voice messaging system according to claim 1, further
 comprising:
 a playback/recorder module adapted to record said voice
 message.
- 20 3. The voice messaging system according to claim 1, further
 comprising:
 an authorized security code table including information
 relating to an ability of said calling party to separately secure said voice
 message.
- 25 4. The voice messaging system according to claim 3,
 wherein:
 said authorized security code table further includes at least
 one security code allowing at least one user access to said separately
 secured voice message.

5. The voice messaging system according to claim 3,
wherein:

said authorized security code table is adapted to include call
related information relating to at least one calling party authorized to
5 secure a voice message.

6. The voice messaging system according to claim 1,
wherein:

said secured message authorization module is adapted to
10 allow said calling party to secure a voice message upon entry of an
authorized security code by said calling party.

7. The voice messaging system according to claim 1,
wherein:

15 said secured message authorization module is adapted to
allow said calling party to secure a voice message upon matching of call
related information relating to said calling party to at least one pre-stored
entry of call related information regarding an ability to secure a voice
message.

20 8. The voice messaging system according to claim 1,
wherein:

each of said plurality of voice messages stored in said voice
message memory include header information, said header information
25 including a secure status of said voice message.

9. The voice messaging system according to claim 1, further
comprising:

a call related information detector/receiver adapted to detect
30 and receive call related information regarding said calling party.

10. The voice messaging system according to claim 1,
wherein:

5 said controller is adapted to compare call related information
received regarding said calling party with at least one pre-stored
authorized security code to allow said calling party to separately secure
said voice message.

11. A method for securing a voice message on a voice
10 messaging system, comprising:

 prompting a calling party to enter an authorized security
code;

15 comparing an entered authorized security code to at least
one pre-stored authorized security code accessible by said voice
messaging system; and

 upon matching said entered authorized security code with
said at least one pre-stored authorized security code, securing a recorded
voice message.

20 12. The method for securing a voice message on a voice
messaging system according to claim 11, wherein:

 said securing is performed after said voice message is
recorded.

25 13. The method for securing a voice message on a voice
messaging system according to claim 11, wherein:

 said securing is performed while said voice message is
being recorded.

14. The method for securing a voice message on a voice messaging system according to claim 11, wherein:

said securing is performed before said voice message is recorded.

5

15. The method for securing a voice message on a voice messaging system according to claim 11, further comprising:

entering said authorized security code from a telephone being used by said calling party.

10

16. A method for accessing a secured voice message on a voice messaging system, comprising:

prompting a user of said voice messaging system to enter an authorized security code on a voice message-by-voice message basis for secured voice messages;

15

comparing an entered authorized security code to at least one pre-stored authorized security code accessible by said voice messaging system; and

upon matching said entered authorized security code with said at least one pre-stored authorized security code, allowing said user access to an underlying secured voice message.

20

17. The method for accessing a secured voice message on a voice messaging system according to claim 16, further comprising:

entering said authorized security code for each secured voice message.

25

18. Apparatus for securing a voice message on a voice messaging system, comprising:

means for prompting a calling party to enter an authorized security code;

5 means for comparing an entered authorized security code to at least one pre-stored authorized security code accessible by said voice messaging system; and

means for securing a recorded voice message, upon matching said entered authorized security code with said at least one pre-stored authorized security code.

10

19. The apparatus for securing a voice message on a voice messaging system according to claim 18, wherein:

said means for securing secures said voice message after
15 said voice message is recorded.

20. The apparatus for securing a voice message on a voice messaging system according to claim 18, wherein:

said means for securing secures said voice message while
20 said voice message is being recorded.

21. The apparatus for securing a voice message on a voice messaging system according to claim 18, wherein:

said means for securing secures said voice message before
25 said voice message is recorded.

22. The apparatus for securing a voice message on a voice messaging system according to claim 18, further comprising:

means for entering said authorized security code from a
30 telephone being used by said calling party.

23. Apparatus for accessing a secured voice message on a voice messaging system, comprising:

5 means for prompting a user of said voice messaging system to enter an authorized security code on a voice message-by-voice message basis for secured voice messages;

means for comparing an entered authorized security code to at least one pre-stored authorized security code accessible by said voice messaging system; and

10 means for allowing said user access to an underlying secured voice message, upon matching said entered authorized security code with said at least one pre-stored authorized security code.

24. The apparatus for accessing a secured voice message on a voice messaging system according to claim 23, further comprising:

15 means for entering said authorized security code for each secured voice message.

ABSTRACT

Apparatus and processes to allow voice messages to be individually and/or separately secured by a caller for playback only by an intended person or persons. The voice messages are separately secured
5 with security information contained in a header associated with each voice message. The caller may be authorized to secure a voice message either by inputting a pre-determined authorization security code using their keypad, or based on call related information received with respect to the incoming call. The user, upon attempt to access a separately secured
10 voice message, is prompted for input of an appropriate authorized security code to allow the access to proceed. Without proper access, a user is allowed to access (e.g., playback, delete, etc.) only non-secured voice messages.

15

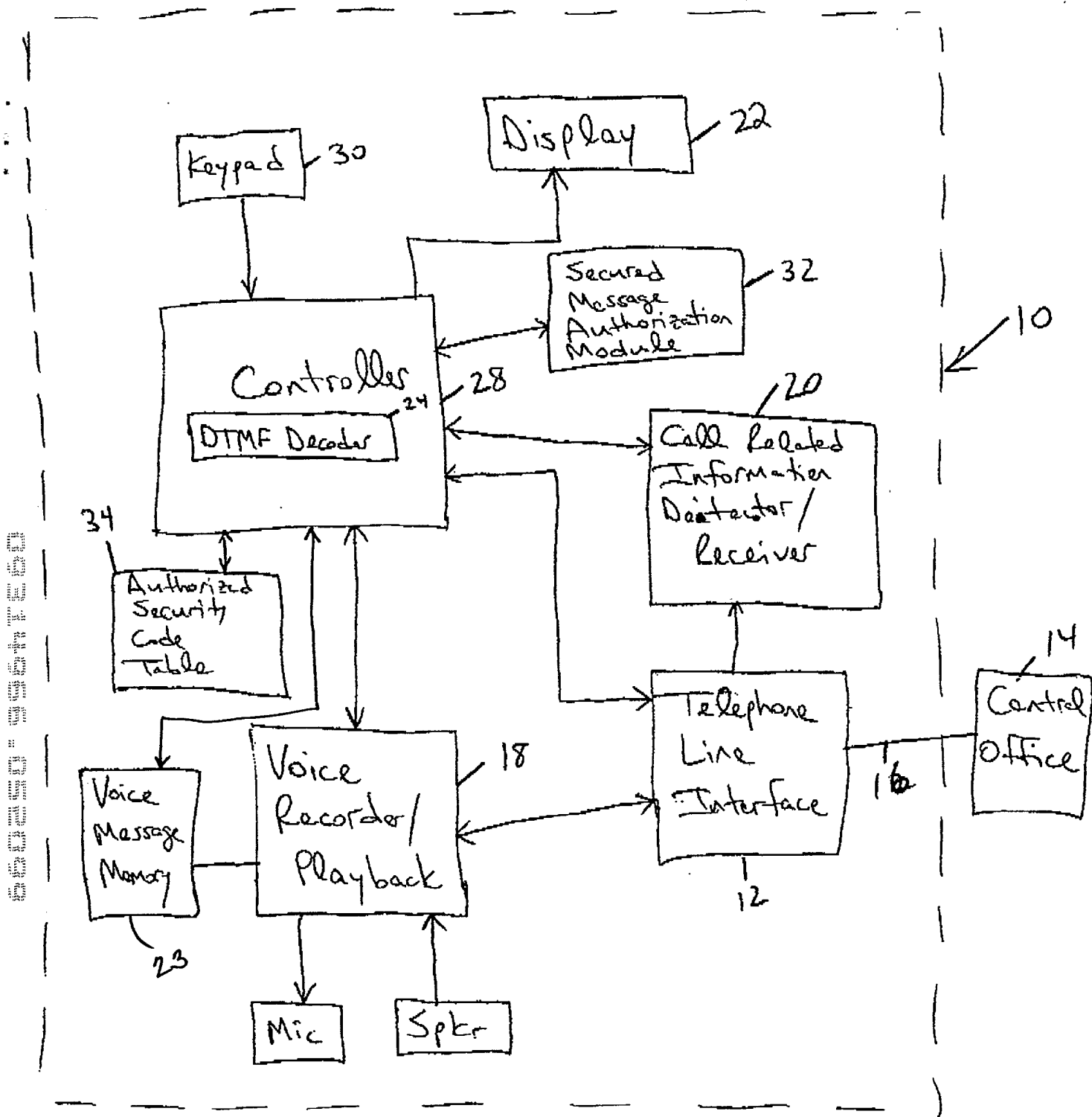


FIG. 1

Authorized Security Codes	
1234	~ 202
5678	~ 204
6543	~ 206
(800) 555-1212	~ 208
JAMES SMITH	~ 210
LUENT 1234	~ 212
⋮	

FIG. 2

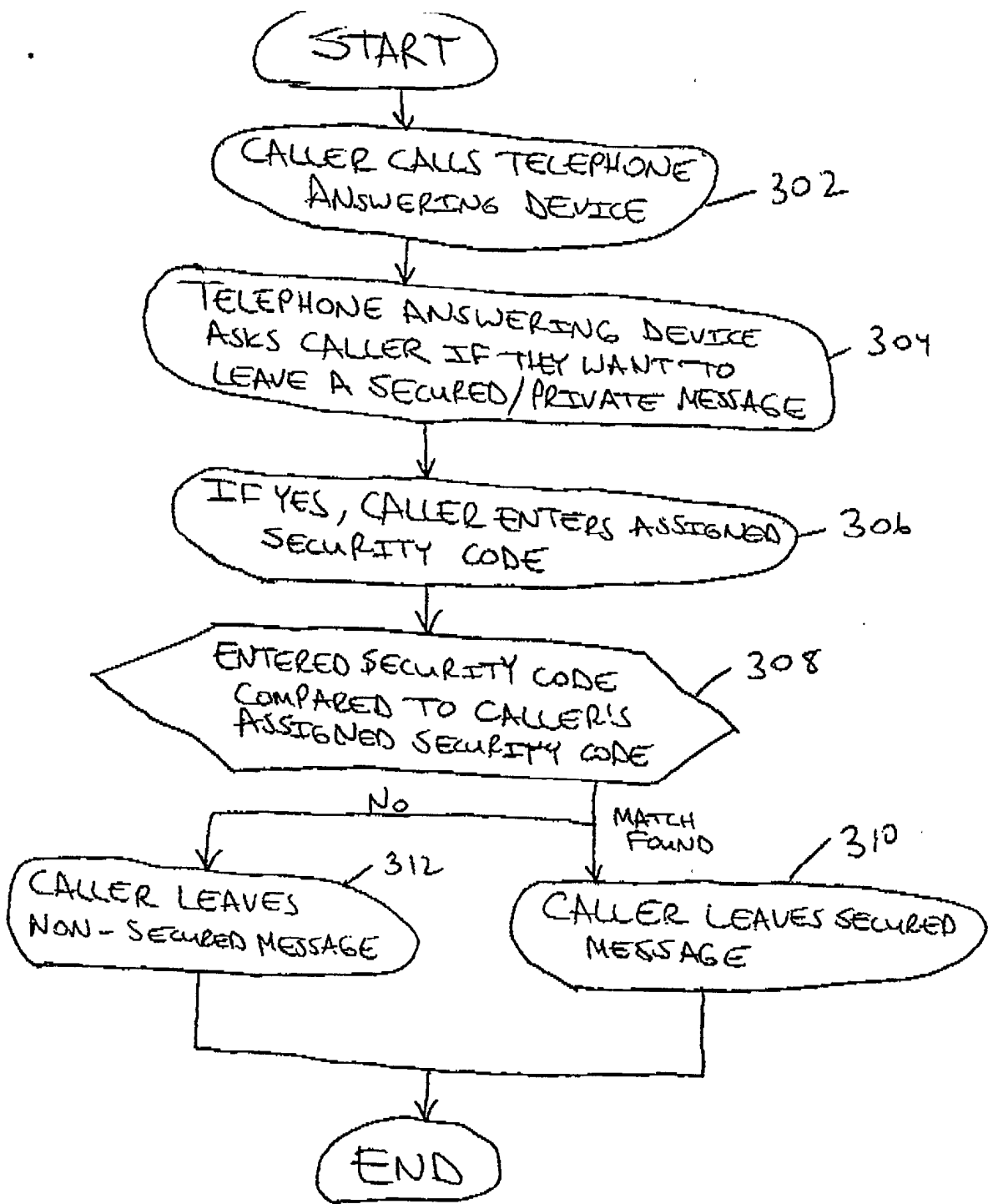


FIG. 3A

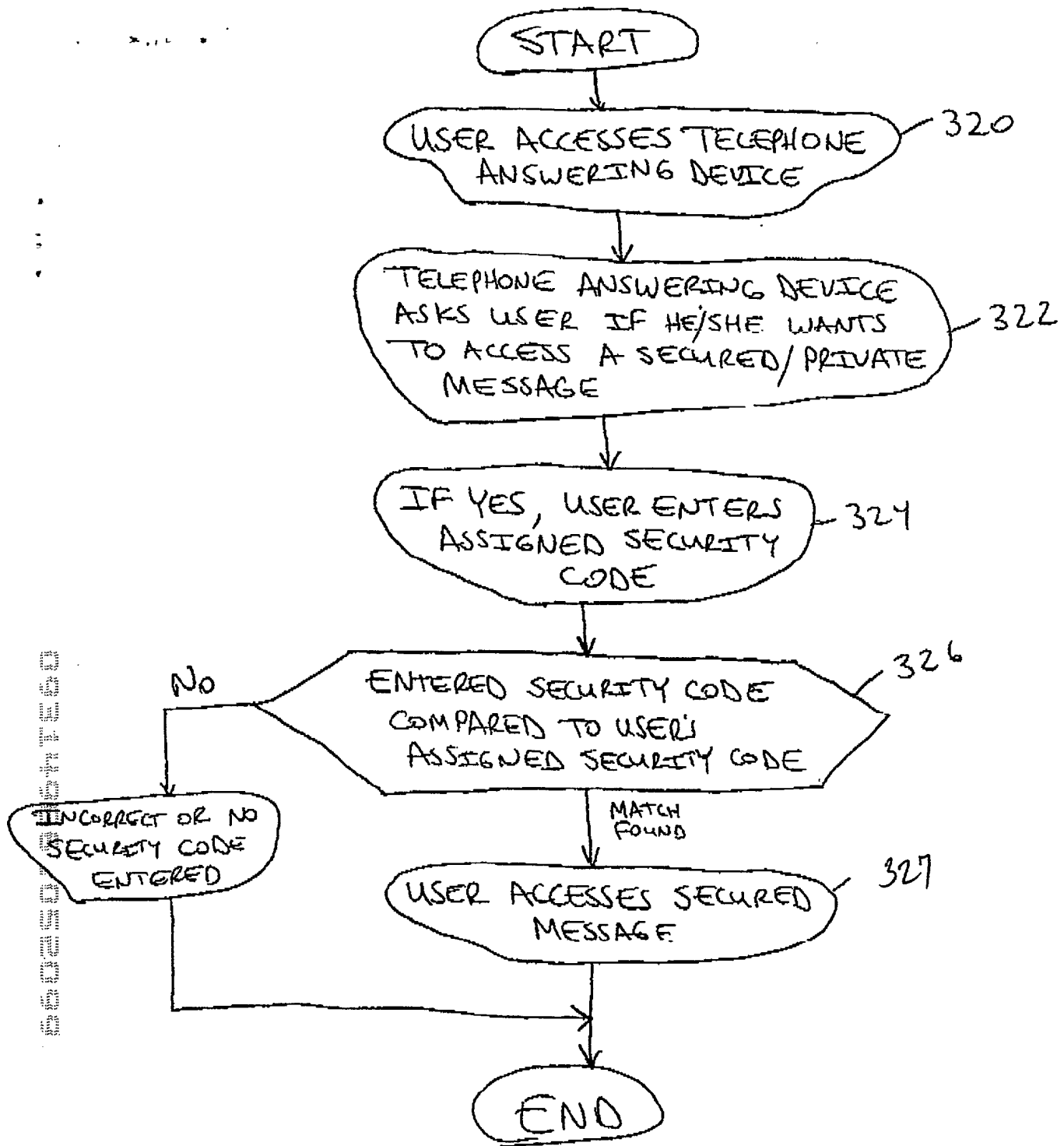


FIG. 3B

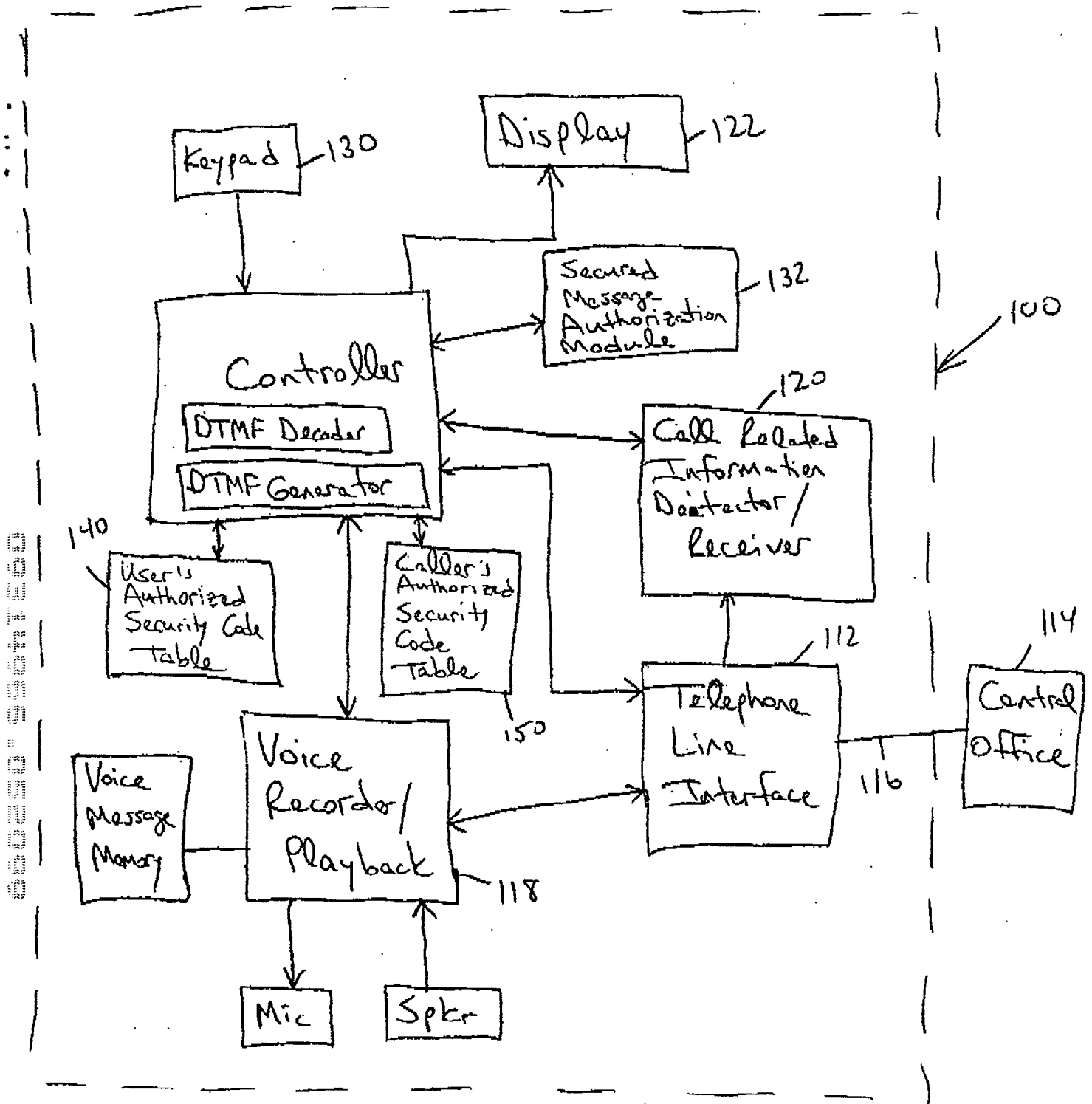


FIG. 4

Caller's Authorized
Security Code Table

1357

2468

2367

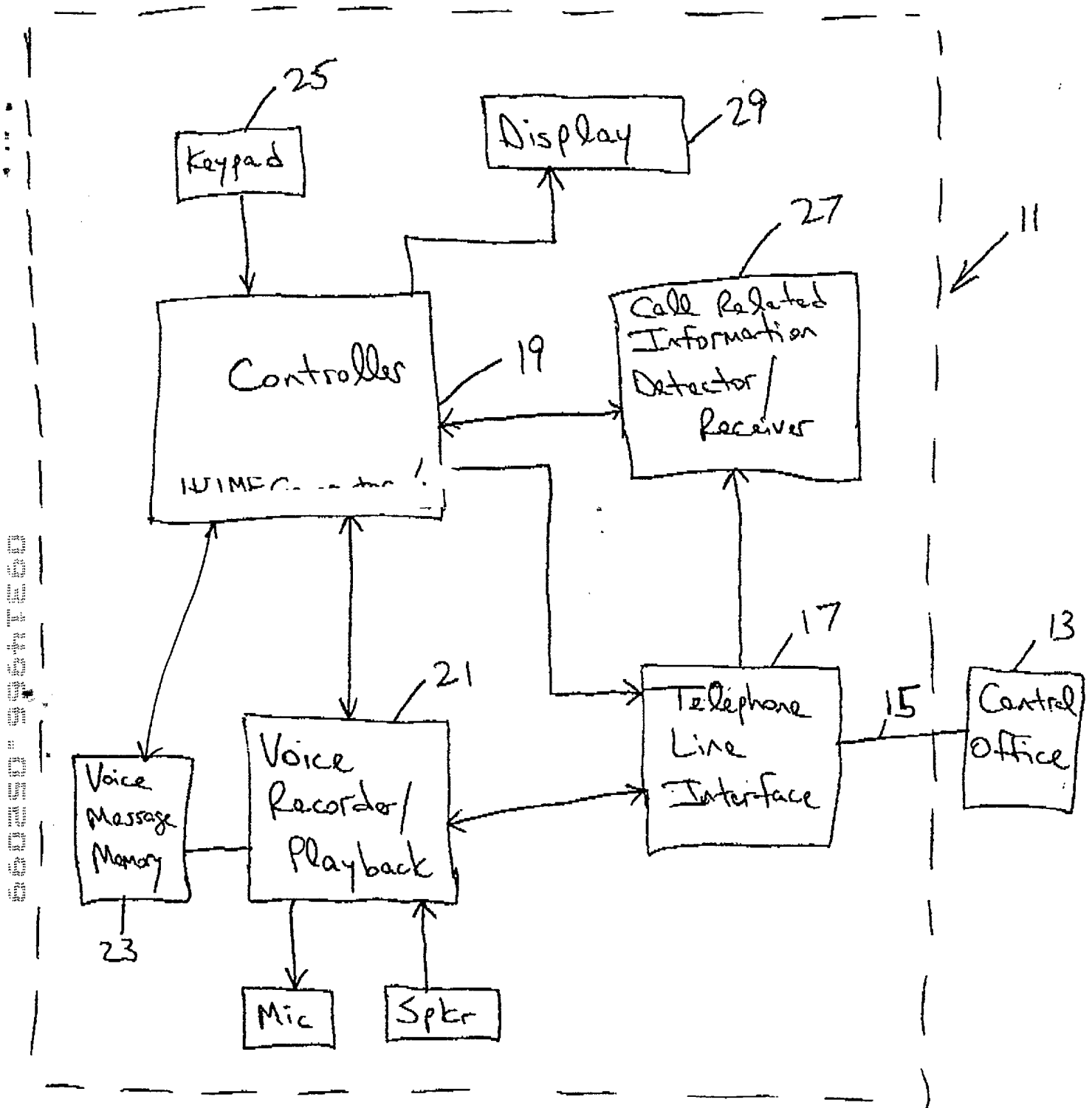
etc.



FIG. 5

User's Authorized Security Code Table
1268
3479
5613
etc ↓

FIG. 6



Prior Art FIG. 7

ALI 17-3 (868)

IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Declaration and Power of Attorney

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled **SEPARATELY SECURED VOICE MESSAGES** the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by an amendment, if any, specifically referred to in this oath or declaration.

I acknowledge the duty to disclose all information known to me which is material to patentability as defined in Title 37, Code of Federal Regulations, 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

None

I hereby claim the benefit under Title 35, United States Code, 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

None

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorney(s) with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith:

Lester H. Birnbaum	(Reg. No. 25830)
Richard J. Botos	(Reg. No. 32016)
Jeffery J. Brosemer	(Reg. No. 36096)
Kenneth M. Brown	(Reg. No. 37590)
Craig J. Cox	(Reg. No. 39643)
Donald P. Dinella	(Reg. No. 39961)
Guy Eriksen	(Reg. No. 41736)
Martin I. Finston	(Reg. No. 31613)
James H. Fox	(Reg. No. 29379)
William S. Francos	(Reg. No. 38456)
Barry H. Freedman	(Reg. No. 26166)
Julio A. Garceran	(Reg. No. 37138)
Mony R. Ghose	(Reg. No. 38159)
Jimmy Goo	(Reg. No. 36528)
Anthony Grillo	(Reg. No. 36535)
Stephen M. Gurey	(Reg. No. 27336)
John M. Harman	(Reg. No. 38173)
Michael B. Johannesen	(Reg. No. 35557)
Mark A. Kurisko	(Reg. No. 38944)
Irena Lager	(Reg. No. 39260)
Christopher N. Malvone	(Reg. No. 34866)
Scott W. McLellan	(Reg. No. 30776)
Martin G. Meder	(Reg. No. 34674)
John C. Moran	(Reg. No. 30782)
Michael A. Morra	(Reg. No. 28975)
Gregory J. Murgia	(Reg. No. 41209)
Claude R. Narcisse	(Reg. No. 38979)
Joseph J. Opalach	(Reg. No. 36229)
Neil R. Ormos	(Reg. No. 35309)
Eugen E. Pacher	(Reg. No. 29964)
Jack R. Penrod	(Reg. No. 31864)
Daniel J. Plotrowski	(Reg. No. 42079)
Gregory C. Ranieri	(Reg. No. 29695)
Scott J. Rittman	(Reg. No. 39010)
Eugene J. Rosenthal	(Reg. No. 36658)
Bruce S. Schneider	(Reg. No. 27949)
Ronald D. Slusky	(Reg. No. 26585)
David L. Smith	(Reg. No. 30592)
Patricia A. Verlangieri	(Reg. No. 42201)
John P. Veschi	(Reg. No. 39058)
David Volejnicek	(Reg. No. 29355)
Charles L. Warren	(Reg. No. 27407)
Jeffrey M. Weinick	(Reg. No. 36304)

Eli Weiss

(Reg. No. 17765)

I hereby appoint the attorney(s) on ATTACHMENT A as associate attorney(s) in the aforementioned application, with full power solely to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected with the prosecution of said application. No other powers are granted to such associate attorney(s) and such associate attorney(s) are specifically denied any power of substitution or revocation.

Full name of 1st joint inventor: **Syed S. ALI**

Inventor's
signature

 Date 5-19-99

Residence: **Allentown, Lehigh County, Pennsylvania**

Citizenship: **PAKISTAN**

Post Office Address: **3947 Kilmer Avenue, Allentown, Pennsylvania 18104**

Full name of 2nd joint inventor: **Said O. BELHAJ**

Inventor's
signature

 Date 5-19-99

Residence: **Coplay, Lehigh County, Pennsylvania**

Citizenship: **GREAT BRITAIN**

Post Office Address: **1525 Clearview Road, Coplay, Pennsylvania 18037**

ATTACHMENT A

Attorney Name(s): William H. Bollman Reg. No.: 36,457

Telephone calls should be made to **Farkas & Manelli PLLC** at:

Phone No.: 202-261-1000

Fax No.: 202-887-0336

All written communications are to be addressed to:

Farkas & Manelli PLLC
2000 M Street, N.W.
7th Floor
Washington D.C. 20036-3307